

## ABSTRACT

This invention is directed at torsional vibration dampers of a rotating shaft. The dampers of the invention provide self-tuning to dampen harmonics, over a broad range of shaft angular velocities. Where the shaft rotates with an angular velocity about a longitudinal axis, and rotates perpendicular to a plane of rotation, the damper comprises: at least one passive damping element, and one controlling damping element.

"Express Mail" Mailing Label Number

EU- 7127 15349US

I hereby certify that this paper or fee is being deposited with the U.S. Postal Service "Express Mail Post Office-to-Addressee" Service under 37 CFR 1.10 on the date indicated below and is addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

March 16 2004

Date of Deposit

Anita J. Malo

Signature of Person Mailing Paper or Fee

Anita J. Malo

Name of Person Signing

03/16/2004

Date of Signature